WEST RIDING COUNTY COUNCIL.

DAIRIES, COWSHEDS, & MILKSHOPS ORDERS, 1885-1899.

SUGGESTIONS

OF

THE WEST RIDING SANITARY COMMITTEE.

The first requirement of Local Authorities aiming at the proper sanitary supervision of cowsheds is the adoption of Regulations under Article 13 of the above Order (see the Model Regulations recently issued by the Local Government Board). Experience has proved that those "Models," owing to their necessary general character for the whole country, do not afford that practical assistance to Sanitary Authorities and their officials which is desirable. Absence of reasonable uniformity of action in this matter is conspicuous throughout the West Riding, and this is doubtless due to the want of more definite principles.

An attempt to overcome these difficulties has induced the West Riding Sanitary Committee to authorise the preparation of the following suggestions which may be regarded only as supplementary to the Model Regulations, not binding in law and merely indicating what the Sanitary Authority should aim at in promoting the sanitation of cowsheds and the healthiness of the cattle housed therein.

I. **NEW BUILDINGS, or premises proposed to be newly occupied as Cowsheds.**—Under Article 7 (2) of the Order, the Sanitary Authority are entitled to one month's notice in writing before any such premises are newly occupied as cowsheds. Before passing the plans for any new cowshed the Authority should see that the materials proposed to be used, and the details of construction, are in accordance with the building by-laws of the district.

CONSTRUCTION.—The walls should be covered internally to a height of 4-ft. 6-in. with a smooth impervious material, so as to provide an easily washable surface. The roof should be externally covered with slate or tiles (not corrugated iron, because of the difficulty in regulating temperature, etc.) Gutters or spouts should be provided to carry the rain water to a fall pipe, which should not discharge into the midden but into the surface drainage system so as to avoid dampness of walls and foundations. In places where other water supply is not convenient the rainwater might be conducted into a cistern, and used for cleansing the manure channel, floor, &c.

The distance of the cowshed from dwelling houses, schools, workshops, or public buildings should not be less than 25 feet. The cowshed should have two sides at least free from obstruction, so as to admit of free lighting and ventilation. The building should be not less than eight feet high internally at the eaves. The width or distance between the front and back main walls should be sufficient to allow for a feeding passage between the wall and manger, a trough manger and hayrack, stall, a manure trench, and a cleansing passage. For example:—

3ft. 3-in. to 4-ft. 0-in. for the passage between the wall and manger.
2-ft. for the trough manger and brick work.
5-ft. 9-in. to 6-ft. 0-in. for the stall.
2-ft. 0-in. to 2-ft. 6-in. for the manure trench, which should be 3-in. deep and carried from one end of the shed to the other.
5-ft. 0-in. to 5-ft. 6-in. for the cleansing passage.

Where a double row of stalls is wanted, the section might be the duplicate of the above with the exception that the raised passage in the centre for general use might remain at 5 feet 6 inches in width.

The width of each stall should be about 4 feet for a single cow, and from 6-ft. 3-in. to 7 feet for a double stall.

LIGHTING.—Light should penetrate every nook and corner. To obtain this every cowshed should be provided with windows, or lights in the roof. Three square feet of window space per cow is suggested as a good working average.

VENTILATION.—The windows should be so constructed that one-half, will open inwards so as to admit air and deflect it upwards above the animals. It is well to provide a number of permanent openings in the walls, so designed that the external aperture is four or five times smaller than the internal orifice. These are placed at about seven feet above the floor, and the air which enters by such cone-shaped openings becomes readily diffused. Another simple method is to place two-inch tile pipes in the wall near the eaves with two inches of rise from the outside inwards. Outlets for the egress of foul air should be provided in the roof—or, if there is a loft or ceiling a chimney is desirable. Louvre ventilators may be employed, or the ridge may be elevated and provided with outlets at proper intervals. Roughly speaking, 30 to 40 square inches of inlet area per animal is advisable, while the outlets should be at least equal to the inlets or, preferably, a little more. The external door should be divided crosswise, so that the top half may be left open when desired.

Increased cubic space is of little value without proper ventilation.

The Local Government Board have advised that those cowsheds where the animals are only taken out for drinking purposes cannot be interpreted as coming under Part I. of the Model Regulations, and therefore are not exempt from the requirements of Part II. as to cubic space.

FLOORING.—The floor of a cowshed should not in any part be below the surface of the ground. It should be properly laid and graded so as to take away all liquids falling upon it. Concrete covered with cement properly furrowed is perhaps the best flooring, because no filth can accumulate in the joints as in ordinary paving. If flags or setts are used they should be laid on a bed of concrete and jointed with cement.

DRAINAGE.—The floor of the standing should have a fall of two or three inches from the manger to the manure channel, whilst the floor of the channel itself should have a fall outwards of at least half-an-inch in cross section, and a fall longitudinally of half-an-inch per single stall, so as to drain away the liquids ; the floor itself should have a similar fall. The channel should discharge on to a trapped gully outside the cowshed leading to a liquid manure tank. No covered drain should exist inside the cowshed.

MIDDEN.—A proper middenstead should be provided in accordance with the by-laws as to prevention of nuisances. Its walls should be made of hard impervious material, and the roof should be supported by means of piers, thereby providing for adequate ventilation and the exclusion of rain. The flooring should also be impervious.

YARD.—The yard and approaches to the cowshed should be properly formed, graded and paved to take away the surface water, which should not discharge into the midden.

MANGER.—A half-round salt-glazed trough, rising 12 or 15 inches above the floor, is much superior to a wooden tub. A hay-rack immediately over this trough obviates the placing of fodder on the floor. Neither the foddering passage nor any part of the cowshed should be used for the storage of foods. A proper food store should be provided.

WATER.—Where the water supply is not derived from a public source, great attention should be given to its protection.

GENERAL.—No poultry or pigs should be kept in any part of the cowshed, and it is desirable also that horses and calves should be excluded.

A thermometer in the cowshed is useful.

II. EXISTING COWSHEDS. — There are no doubt some buildings used as Cowsheds which were not originally constructed for that purpose and which cannot, except by reconstruction, be made to satisfy even the most elementary hygienic requirements. On the other hand there are a great number of existing cowsheds which although not fulfilling all the conditions set forth above may yet be rendered workable by providing them with abundance of light, efficient ventilation, impervious flooring, and an adequate supply of water. These essentials CAN be secured and should be insisted upon by the Sanitary Authority.

III. REGISTER.—A Register should be kept by every Sanitary Authority in which to record the results of periodical inspections. No cowshed should be used for housing a greater number of cows than is specified on the register. Amongst other information locally desirable the following items are suggested :—

1. Name and address of person registered.
2. Situation of premises.
3. Owner of premises.
4. Number of sheds with size—length, width, height, and cubic space per cow.
5. Number of cows in each shed.
6. Flooring—material and condition of
7. Walls, material—rough or smooth.
8. Water supply—source, position.
9. Lighting—number and size of windows or other lights.
10. Ventilation—Number and size of permanent openings. Number and size of openings capable of regulation.
11. Midden—distance from cowshed, open or covered, disposal of liquid manure.
12. Yard—formation, paving, drainage.
13. Cleanliness—general condition of floors, walls, midden, yard.
14. General drainage system.
15. Disposal of drainage.

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Wakefield, 1901.